



OPERATING PERMIT (Conditional Major) Issued Pursuant to Tennessee Air Quality Act

Date Issued:

Permit Number:

445163P

Date Expires: March 1, 2014

Issued To:

Bekaert Corporation – Dyersburg

Installation Address:

One Bekaert Road, Industrial Park
Dyersburg

Installation Description:

Tire Cord Manufacturer consisting of:

01- BAZ Line

02- IPH Line

03- CAZ Line

04- ISC Line

05- Boilers

06- Tanks

Emission Source Reference No.

23-0103

CONDITIONAL MAJOR SOURCE

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

GENERAL CONDITION:

1. The applications that were utilized in the preparation of this permit are dated June 3, 1996, signed by Patrick DeKeyzer, Plant Manager, at the time of signing of the permitted facility. Updates were made on June 20, 1996; September 3, 1996; January 10, 1997; August 8, 2000; March 7, 2001; December 2, 2002; April 22, 2003; and December 16, 2003. Since the initial application, the current responsible official has changed to Gary Downey, Plant Manager. If this person (Gary Downey) terminates employment or is reassigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

Section I: Conditions Applicable To All Sections Of The Plant Unless Otherwise Noted.

2. The permittee has elected to opt-out of being issued a major source operating permit pursuant to Division Rule 1200-3-9-.02(11)(a). The permittee would be considered a major source because their "potential to emit" values for a single hazardous air pollutant (HAP) was greater than 10 tons per year and for particulate matter (PM) was greater than 100 tons per year at the time of application. The permittee has agreed to be subject to limitations in order to be below the major source applicability thresholds for a single HAP of 10 tons per year and for PM of 100 tons per year.

(Conditions Continued on Next Page)

TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

CN-0827 (Rev. 9-92)

POST AT INSTALLATION ADDRESS

RDA-1298

3. Any noncompliance with any condition(s) of this permit set to restrain the "potential to emit" below the applicability threshold(s) of 1200-3-9-.02(11)(a) of the Tennessee Air Pollution Control Regulations, shall be reported in writing to the Technical Secretary within three (3) working days of such discovery. This notification, at a minimum, shall include the identification of the source, identification of the permit condition(s) violated and details of the violation.
4. The permittee is placed on notice that **Conditions 5, 6, 10, 21, 26, 28, 32 and 37** of this operating permit contain limitations that allow the permittee to opt out of the major source operating permit program requirements specified in Division Rule 1200-3-9-.02(11)(a). Failure to abide by these limits will not only subject the permittee to enforcement action by the state of Tennessee, but it may also result in the imposition of Federal enforcement action by the United States Environmental Protection Agency and the loss of being Federally recognized as a conditional major source.
5. Emissions of hydrochloric acid or any hazardous air pollutant (HAP) listed in Section 112 of the Federal Clean Air Act shall not exceed 9.5 tons during all intervals of 12 consecutive months. This condition is established pursuant to Rule 1200-3-09-.02(11)(a) and the agreement letter dated December 16, 2003.
6. Particulate matter emissions from the entire facility shall not exceed 79.9 tons during all intervals of 12 consecutive months. This condition is established pursuant to Rule 1200-3-09-.02(11)(a) and the information contained in the agreement letter dated December 16, 2003.
7. Should proof of compliance for the pollutants with emission limitations placed on this permit be required, the emissions measuring test methods and procedures are the following:

<u>Pollutant or Parameter</u>	<u>Testing Methodology</u>
Hydrochloric Acid (HCl)	EPA Method 26 as published in the current 40 CFR 60, Appendix A
Particulate Matter (PM)	EPA Method 5 as published in the current 40 CFR 60, Appendix A

8. A report stating the compliance status of this facility with **Conditions 5, 6, 9, 10, 21, 26, and 37** shall be submitted by March 31 of every year for the preceding calendar year. The first report shall cover the calendar year of 2004 and is due March 31, 2005. Each report shall cover the preceding calendar year and contain the records required by **Conditions 11, 21, and 26**. These reports shall be submitted to the Jackson Environmental Assistance Center at the following address:

Jackson Environmental Assistance Center
Tennessee Division of Air Pollution Control
362 Carriage House Drive
Jackson, TN 38305-2222

9. The minimum air pressure drops across the HCl scrubbers, minimum scrubbing liquid flow rates, and acceptable scrubbing liquid pH ranges for scrubbing liquid in HCl scrubbers shall be as follows, in accordance with **Table 1**. Compliance with this condition shall be indicated from the records required by **Condition 11**.

TABLE 1 – Source 23-0103 HCl Scrubber Parameters

HCl Scrubber	Minimum Pressure Drop** (inches of water)	Minimum Scrubbing Liquid Flow Rate (gpm)	pH Range (standard units)
BAZ Line HCl Pickling Bath Scrubber	0.5	10.0	7.0 to 12.0
IPH Line HCl Pickling Bath Scrubber	0.5*	30.0*	7.0 to 11.0*
ISC Line HCl Pickling Bath Scrubber	0.5*	25.0*	7.0 to 11.0*

*measured over the 3rd stage of the system

**pressure drop is air pressure differential measured in terms of a water column and does not represent water pressure

10. The permittee shall not operate any HCl Pickling Baths on the BAZ Line, the IPH Line, or on the ISC Line unless their associated scrubbers are installed and operating properly. All gauges serving the air pollution control devices shall be functioning and repaired promptly upon failure or malfunction.
11. The pressure drop, scrubbing liquid flow rate, and scrubbing liquid pH, shall be recorded once daily for the HCl scrubbers serving the BAZ, IPH, and ISC lines when those lines are in operation, in accordance with **Table 2**. If readings fall below the levels required by **Condition 9**, pertinent notes/explanations may be considered by the Division in reviewing such deviations. This daily record for each scrubber shall be retained for a period of not less than five years and shall be made readily available for review upon request of the Technical Secretary or his representative.

(conditions continued on next page)

TABLE 2 – Source 23-0103 HCl Scrubber Record**Scrubber ID:**

Date	Time	Pressure Drop (inches of water)	Scrubbing Liquid Flow Rate (gpm)	pH (standard units)	Operator Initials	Comments

12. Routine maintenance, as required to maintain specified emission limits, shall be performed on ALL air pollution control devices (i.e., tank lids, covers, dust collectors, scrubbers, etc.) Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years.
13. Upon the malfunction/failure of any emission control device(s), including baghouses and scrubbers, serving any source, the operation(s) of the process(s) serviced by these control devices shall be regulated by Rule 1200-3-20 of the Tennessee Air Pollution Control Regulations.
14. Visible emissions from any stack venting to the atmosphere shall not exceed 20 percent or greater opacity as determined by EPA Method 9, as published in 40 CFR 60, Appendix A (6-minute average).
This emission limitation is established pursuant to Rule 1200-3-5-.01(1) of the Tennessee Air Pollution Control Regulations.
15. Excess emissions shall be addressed as specified in Chapter 1200-3-20 of the Tennessee Air Pollution Control Regulations.
16. This permit supersedes any previous permits for this source.
17. The permittee shall apply for renewal of this permit not less than 60 days prior to the permit's expiration date.

Section II: Source Specific Conditions

23-0103-01 **BAZ Line** This source consists of five (5) Hydrochloric Acid Pickling Baths: emissions controlled with one (1) Viron Packed Tower Scrubber, five (5) Borax Baths: no emission controls, and five (5) Dry Draw Machines: emissions controlled with one (1) baghouse.

18. Particulate matter emitted from this source shall not exceed 4 pounds per hour (This is equivalent to 17.52 tons per year). Compliance with this condition shall be indicated from compliance with **Conditions 14 and 19** and the records required by **Condition 21**.
This emission limitation is established pursuant to 1200-3-7-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated December 16, 2003 from the permittee.
19. This process shall not be operated without the use of the associated baghouse and Viron scrubber.
20. Hydrochloric acid emissions from this source shall not exceed 2.5 tons during all intervals of twelve (12) consecutive months. Compliance with this condition will be indicated from compliance with **Conditions 9 and 19**.
21. The baghouse must operate when the equipment controlled by the baghouse is in operation. A minimum of one (1) inch of water for pressure drop across the baghouse must be maintained while the process is in operation. Readings of pressure drop across the baghouse shall be performed at least once per day while the process is in operation and be recorded in a log (see example below). If any readings fall below the required level established in this condition, pertinent notes/explanations may be considered by the Division in reviewing such deviations. This record must be retained for a period of not less than five (5) years and shall be made readily available for review upon request of the Technical Secretary or his representative.

TABLE 3 – Source 23-0103-01 Baghouse Record

Date	Time	Pressure Drop (inches of water)	Operator Initials	Comments

23-0103-02

IPH Line This source consists of one (1) Annealing Furnace (4 MMBtu/Hr): no emission controls, one (1) Aqua Quench Bath: no control, one (1) Hydrochloric Acid Pickling Bath: emissions controlled with a three stage, recirculating, Packed Tower Scrubber system, one (1) Borax Bath: no emission controls, and one (1) Drying Furnace (0.5 MMBtu/Hr): no emission controls.

22. Particulate matter emitted from this source shall not exceed 3.0 pounds per hour (This is equivalent to 13.14 tons per year). Compliance with this condition shall be indicated from compliance with **Condition 14**.

This emission limitation is established pursuant to 1200-3-7-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated December 16, 2003 from the permittee.

23. Hydrochloric acid emissions from this source shall not exceed 1 ton during all intervals of twelve (12) consecutive months. Compliance with this condition will be indicated from compliance with **Conditions 9 and 10**.

23-0103-03

CAZ Line This source consists of eleven (11) Dry Draw Machines: emissions controlled with one (1) baghouse.

24. Particulate matter emitted from this source shall not exceed 5.0 pounds per hour (This is equivalent to 21.9 tons per year). Compliance with this condition will be indicated from compliance with **Conditions 14 and 25** and the records required by **Condition 26**.

This emission limitation is established pursuant to 1200-3-7-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated December 16, 2003 from the permittee.

25. This process shall not be operated without the use of the associated baghouse.
26. The baghouse must operate when the equipment controlled by the baghouse is in operation. A minimum of one (1) inch of water for pressure drop across the baghouse must be maintained while the process is in operation. Readings of pressure drop across the baghouse shall be performed at least once per day while the process is in operation and be recorded in a log (see example below). If any readings fall below the required level established in this condition, pertinent notes/explanations may be considered by the Division in reviewing such deviations. This record must be retained for a period of not less than five (5) years and shall be made readily available for review upon request of the Technical Secretary or his representative.

TABLE 4 – Source 23-0103-03 Baghouse Record

Date	Time	Pressure Drop (inches of water)	Operator Initials	Comments

DRAFT

23-0103-04

ISC Line This source consists of four (4) Annealing Furnaces (2MMBtu/Hr each): no emission controls, four (4) Hydrochloric Acid De-scaling Baths: emissions controlled by a 3-stage scrubber system, four (4) Borax Degreaser Baths: no emission control, one (1) Zinc Sulfate Evaporator: emissions controlled with a Techmatic Omni II scrubber, one (1) Fluidized Bed Quench Operation: no emission control, four (4) Copper Electroplating Baths: emissions controlled by four (4) demister pad units, and four (4) Zinc Electroplating Baths: no emission controls, exhaust to building interior.

27. Particulate matter emitted from this source shall not exceed 6.0 pounds per hour (This is equivalent to 26.28 tons per year). Compliance shall be indicated from compliance with **Condition 14**.

This emission limitation is established pursuant to 1200-3-7-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated December 16, 2003 from the permittee.

28. a) The permittee may not operate the ISC lines unless the 3-stage scrubber system controlling HCl emissions from pickling baths is functioning properly.
- b) The permittee may not operate the Zinc Sulfate Evaporator unless the Techmatic Omni II scrubber is functioning properly.
29. Hydrochloric acid emissions from the 3rd stage scrubber shall not exceed 2.5 tons during all intervals of twelve (12) consecutive months. Compliance with this condition will be indicated from compliance with **Conditions 9, 10, and 28a**.
30. Sulfuric acid emissions from the Techmatic Omni II scrubber shall not exceed 2 tons during all intervals of twelve (12) consecutive months. Compliance with this condition will be indicated from compliance with **Condition 28b**.

23-0103-05**Two (2) 8.4 million BTU per hour boilers fueled by natural gas.**

31. The total stated maximum design heat input rate for this fuel-burning installation is 16,800,000 British Thermal Units per hour (Btu/hr). The Technical Secretary may require the permittee may to prove compliance with this rate.
32. Only natural gas shall be used as fuel for this source.
33. Particulate matter emitted from this source shall not exceed 0.2 lb/hr (This is equivalent to 0.9 tons per year). Compliance with this condition shall be indicated from compliance with **Conditions 31 and 32**.
- This emission limitation is established pursuant to Rule 1200-3-6-.01(7) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated December 16, 2003 from the permittee.
34. Sulfur dioxide (SO₂) emitted from this source shall not exceed 0.02 lb/hr (This is equivalent to 0.09 tons per year). Compliance with this condition shall be indicated from compliance with **Conditions 31 and 32**.

This emission limitation is established pursuant to Rule 1200-3-14-.01(3) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated December 16, 2003 from the permittee.

23-0103-06**Wastewater Pre-treatment and Tank Farm Emissions controlled with recovery scrubber(s)**

35. This permit is valid only for the storage tanks listed below:

<u>Tank I.D.</u>	<u>Contents</u>	<u>Capacity</u>
T-301	HCl – 27%	4,000 gallons
T-302	HCl – 27%	13,500 gallons
T-303	HCl – 8%	13,500 gallons
T-304	HCl – 38%	13,500 gallons
T-305	HCl – 10%	13,500 gallons
T-306	HCl – 10%	13,500 gallons
T-307	HCl – 15%	4,000 gallons

36. Hydrochloric Acid emitted from these permitted tanks shall not exceed 3.5 tons during all intervals of twelve (12) consecutive months. Compliance with this condition shall be indicated from compliance with **Condition 37**.
37. Tanks that hold and/or store solutions of HCl shall direct the vapors emitted from tank vents to a recovery scrubber to minimize the release of HCl to the atmosphere. The permittee shall include a statement of compliance in each annual report to the Division indicating that the recovery and control scrubber(s) were in place and operating properly during the time of source operation. The Technical Secretary may require the permittee to establish the actual emission rates of HCl from the tank farm.

(end of conditions)

CURRENT EMISSIONS REQUIREMENTS AND EMISSION SUMMARY

COMPANY NAME: Bekaert Corporation - Dyersburg1. EMISSION SOURCE REFERENCE NUMBER: 23-0103NONATTAINMENT: XATTAINMENT: 2. LOG NUMBER: 451633A. PERMIT STATUS: NEW X RENEWAL RELOCATION 3B. PREVIOUS PERMIT NUMBER: CONSTRUCTION: 956586P, 956587P, 956588P, 956589P, 956590F, 956591P

4. IDENTIFY IF ONLY A PART OF THE SOURCE IS SUBJECT TO THIS REQUIREMENT	5. POLLUTANT	6. APPLICABLE REQUIREMENT(S): TN AIR POLLUTION CONTROL REGULATIONS, 40 CFR, PERMIT RESTRICTIONS, AIR QUALITY BASED STANDARDS	7. LIMITATION	8. MAXIMUM ACTUAL EMISSIONS			9. MAXIMUM ALLOWABLE EMISSIONS	
				IN UNITS OF ITEM 7	POUNDS / HOUR	TONS / YEAR	POUNDS / HOUR	TONS / YEAR
Facility Wide	Hydrochloric Acid	1200-3-9-.02(11)(a)	9.5 tons/year					9.5
Facility Wide	PM	1200-3-9-.02(11)(a)	79.9 tons/year					79.9
Source 02 – IPH	SO ₂	1200-3-14-.03(5)					0.0027	0.012
	NO _x	1200-3-7-.07(2)					0.46	2.01
	VOC	1200-3-7-.07(2)					0.025	0.11
	CO	1200-3-7-.07(2)					0.38	1.66
Source 04 – ISC	H ₂ SO ₄	1200-3-7-.07(2)						2
	SO ₂	1200-3-14-.03(5)					0.005	0.02
	NO _x	1200-3-7-.07(2)					0.8	3.5
	VOC	1200-3-7-.07(2)					0.044	0.19
	CO	1200-3-7-.07(2)					0.672	2.94
Source 05 – Boilers	SO ₂	1200-3-14-.01(3)			0.01	0.04	0.02	0.09
	NO _x	1200-3-7-.07(2)					1.67	7.33
	VOC	1200-3-7-.07(2)					0.09	0.4
	CO	1200-3-7-.07(2)					1.41	6.16
Facility Wide	Opacity	1200-3-.05(1)	20 %	SOURCE OF DATA FOR EMISSIONS IN ITEM 8: Data was taken from previous permit numbers 956586P, 956587P, 956588P, 956589P, 956590F, and 956591P.				

IF THIS IS NOT A TITLE V SOURCE, IS THIS A DEFERRED SOURCE (SUBJECT TO NSPS OR NESHAPS) OR A SYNTHETIC MINOR SOURCE? Conditional Major
 IF THE ANSWER IS YES, EXPLAIN:

ENGINEERING SPECIALIST: John FussDATE: January 5, 2004